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PREFACE

This bibliography provides selective annotations of open-source material on two current issues:

- --nuclear developments in South Asia, and
- --tactics and organization of the Afghan resistance

The bibliography incorporates serials and monographs received in the previous month and is part of a continuing series on the above subjects.

Entries within each topic are arranged alphabetically by author or title. Call numbers for materials available in the Library of Congress are included to facilitate recovery of works cited.

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1. NUCLEAR DEVELOPMENTS IN SOUTH ASIA

GLOSSARY OF TERMS

AEMC

The Atomic Energy Minerals Center at Lahore is responsible for finding and recovering uranium ore, thereby filling a vital need stemming from boycotts of Pakistan by international nuclear fuel suppliers.

BARC

Bhabba Atomic Research Centre is located in north Bombay and is India's facility for research in and development of nuclear technology.

CHASHNUPP

Pakistan's Chashma Nuclear Power Plant, a projected 900-megawatt facility in Mianwali District, Punjab, was sanctioned in 1982 in order to create electrical power through light-water technology.

Cirus

A Candu-type Canadian-built plant located at BARC, Cirus was commissioned in 1960. India reprocessed spent fuel from Cirus to make the plutonium for its 1974 "peaceful nuclear explosion;" Cirus has a capacity of 40 megawatts.

Dhruva

One of the world's few high-flux reactors, Dhruva, which went critical in August 1985, is solely the product of Indian research and production, and therefore, falls completely outside IAEA safeguards. Dhruva shares facilities with Cirus, its neighbor in the BARC, has a 100-megawatt capacity, and can produce 30 kg of plutonium annually.

IAEA

International Atomic Energy Agency (United Nations)

Kalpakkam

This Tamil Nadu town is the site of the Indira Gandhi Atomic Research Center (formerly MAPP) and gives its name to a 40-megawatt fast-breeder reactor which went critical in August 1985 using plutonium-uranium carbide fuel.

KANUPP

Karachi Nuclear Power Plant, a 125-megawatt reactor, was supplied by Canada on a turnkey basis and became operational in 1972.

MAPP-1

Madras Atomic Power Project's first Candu-type 235-megawatt unit was commissioned in January 1984. The center is located at Kalpakkam, Tamil Nadu, and was produced completely by Indian research and technology; consequently, its units and the plutonium they produce fall outside IAEA inspection safeguards. MAPP units are intended to provide electricity for Madras. In October 1985, MAPP was renamed the Indira Gandhi Atomic Research Center, but new names for individual plants have not been made public.

MAPP-2

The second unit at Madras Atomic Power Project is also a Candu-type 235-megawatt plutonium and heavy-water reactor. MAPP-2 went critical in August 1985 and was commissioned in October of the same year.

NPT

The Nuclear Nonproliferation Treaty was ratified by the UN General Assembly in 1968. India and Pakistan contend that the NPT discriminates against nonnuclear states, but Pakistan has repeatedly offered to sign if India will do so simultaneously. In the UNGA, Islamabad voted in favor of the NPT.

PAEC

Pakistan Atomic Energy Commission

PINSTECH

Pakistan Institute of Nuclear Science Technology, the site of a US-supplied 5-megawatt "swimming pool"-type reactor installed in the 1960s

Tarapur

The Tarapur nuclear power plant, located near Bombay, was built by the United States. It has a capacity of 600 megawatts and can annually produce 50 to 80 kg of plutonium. Tarapur and its products come under IAEA inspection safeguards.

CITATIONS AND ABSTRACTS

Ali, Akhtar. "South Asian Nuclear Scene." Pakistan & Gulf Economist (Karachi), 22-28 November 1986, pp. 8-11.

The author of a book on Pakistan's nuclear options, Ali argues that, despite recent press reports, India has no reason to fear the Pakistani nuclear industry, and that the creation of an Indian bomb would actually damage India's strategic interests:

- 1) India has an indisputable advantage both in technology and in the accumulation of nuclear fuel.
- 2) Recent Sino-Pak nuclear agreements are clearly for non-military purposes, and therefore pose no threat to India.
- 3) The creation of an Indian bomb would only strengthen the Chinese and US commitment to protect Pakistan. This in turn would strengthen India's dependence on the Soviet Union.
- 4) Pakistan has already proved the innocence of its intentions by offering to sign an agreement for full mutual inspection of nuclear facilities. Even if India is wary of compromising its long-term options, it could sign a temporary agreeement to be renewed periodically.
- "Bangladesh's First N-Reactor." <u>Hindu</u> (Madras), 12 January 1987, p. 9.

The nation's first nuclear reactor, the 3-MW Savar reactor on the outskirts of Dhaka, has been brought online. The installation was supplied by the United States, and will be used in the production of radio-isotopes as well as for medical and agricultural research.

Chandra, Prakash. "Anti-Nuclear Lobby Emerges In South India."
Indonesia Times (Jakarta), 15 November 1986, p. 4.

The Indian Government's efforts to build a nuclear power station in Kaiga have given rise to a vigorous anti-nuclear lobby similar to the Greenpeace Movement in

Europe. The Kaiga plant, located in the dense forests of Karnataka, is scheduled to have two 235-MW reactors on line by 1994. The site was chosen for its ample water supply, sparse population and wide expanse of unused land. Aside from environmental concerns, critics claim that a nuclear plant at this particular site would be vulnerable to a number of natural and man-made hazards: satellite photographs show that the site is near a 40-foot wide seismic fault. In addition, the Kali Dam Project is merely 45 kilometers upstream from the proposed plant. An imbalance in water pressure could rupture the dam, exposing the reactors to serious damage. Finally, Kaiga is near Karwar harbor, where the nation's largest naval base is currently under construction. This could pose a high security risk for the reactors in time of war.

Aside from the specifics of the Kaiga plant, the anti-nuclear movement has also expressed concern about the growing amount of nuclear waste, which currently amounts to 5,000 cubic meters, but is expected to surpass one million cubic meters by the year 2000.

Chopra, V.D. and Gupta, Rakesh. <u>Nuclear Bomb and Pakistan</u>. New Delhi: Patriot Publishers, 1986. Uncatalogued.

Chopra, a journalist and winner of the Soviet Land Nehru Award in 1984, and R. Gupta, a professor of politics at Jawaharlala Nehru University in New Delhi, trace the development of nuclear technology in Pakistan, and examine the roles of Washington and Beijing in fostering Pakistan's nuclear capability. The authors argue that the militarization and nuclearization of Pakistan have changed the strategic balance of the region, and have furthered the goals of imperialist world domination.

Howe, Russell Warren. "Islamic Bomb & Israel." <u>Statesman</u> (Calcutta), 18 January 1987, p. 8.

Howe details the European and American nuclear technology that Pakistan has imported over the past five years and argues that, with the completion of the Chashma

reprocessing plant, Pakistan will be able to produce 300 pounds of weapons-grade plutonium annually, enough for 20 warheads of the Nagasaki type. The KANUPP reactor currently provides only 20% of the spent fuel necessary for such an output, and the remainder is expected to come from the Kahuta enrichment facility that is now nearing completion. Until Kahuta comes on line, Pakistan will be limited to approximately 20 pounds of plutonium annually.

The author argues that Pakistan has used the Soviet presence in Afghanistan as a cover for its efforts at nuclear development, and as a guarantee of continuing American aid. He also claims that the purpose of the Pakistani bomb is not to threaten India, but to protect Muslim West Asia from Israel's nuclear armory.

"Nuclear Energy Key To Industrialisation." <u>Hindu</u> (Madras), 20 January 1987, p. 10.

In a meeting with other nuclear power officials in Madras, Dr. Raja Ramanna, Chairman of the Atomic Energy Commission, announces that the Madras Atomic Power Project (MAPP) in Kalpakkam is earning between 1.5 and 2 billion rupees annually, and that nuclear power generation nationwide is approaching the break-even point.

According to K.S.N. Murthy, Director of MAPP, the two reactors at Kalpakkam are producing 180 MW and 190 MW respectively. A total of 130 million units (MU) are being fed into the state's power grid, and the figure is expected to approach 150 MU in the near future.

The Indira Gandhi Fast Breeder Test Reactor, also in Kalpakkam, has been temporarily shut down, but will be restarted in the next couple of months. With a 3-MW capacity, it is expected to reach an output of 10 MU by mid or late 1987.

"Pak N-Capacity Not A Myth." <u>Times of India</u> (Bombay), 29 January 1987, p. 1.

In an interview in the Pakistan weekly <u>Hurmat</u>, two European nuclear scientists confirm that Pakistan is only two turns of the screw from building an atomic bomb. Professor M.J. Brabers, a Belgian scientist, is a former teacher of Dr. Abdul Qader Khan (the leader of the Pakistani nuclear program). Brabers and Dr. Cylobus, a Dutch metallurgist, claim that Pakistan is well ahead of India in the field of uranium enrichment, but that India has the edge in the construction of nulcear reactors.

Dr. Griffin, a British engineer, further remarks that Pakistan is totally self-sufficient in the production of nuclear reactor fuel.

"Pindi May Buy 900-MW N-Reactor." <u>Times of India</u>. (Bombay), 27 December 1986, p. 1.

According to a report published in the journal American Foreign Service, Pakistan may soon acquire a 900-MW nuclear reactor from either French or American sources. The reactor would allegedly be outside of international safeguards, and thus could provide an unmonitored supply of plutonium. Much of the estimated one billion dollar cost would be supplied by Saudi Arabia, and the reactor would be set up near Pakistan's unsafeguarded reprocessing plant at Chashma.

Although US companies can not legally provide such technology outside of IAEA controls, Westinghouse is allegedly considering channeling the equipment through its Spanish affiliate, Nuclear Espanola.

"Pindi Seeks Graphite For N-Bomb." <u>Times of India</u> (Bombay), 26 December 1986, p. 21.

According to West European defence analysts, Pakistan has been trying for the past two years to buy large quantities of graphite for use in a nuclear reactor. Top-quality graphite can be used to "moderate" some types of reactors that produce plutonium. The nation was unsuccessful in its efforts to buy more than 100 tons of graphite from the

Swiss office of Union Carbide last year. The deal was cancelled when Union Carbide was unable to obtain an export license.

"TAPS Unit To Close For Refuelling." <u>Times of India</u> (Bombay), 19 January 1987, p. 5.

Unit #1 of the Tarapur Atomic Power Station has been shut down for 90 days for refuelling. The closing will cause power reductions in Gujarat and Maharashtra, with each state limited to 70 MW. The power station is expected to go back on line in April.

2. TACTICS AND ORGANIZATION OF THE AFGHAN RESISTANCE

GLOSSARY OF TERMS

Commander

A resistance fighter who is recognized as a military leader in local or regional areas of conflict; some commanders are respected outside their own regions, but there is not yet a coordinated, nationwide, insurgent command in Afghanistan. The title commander is the only honorific or rank recognized by the resistance movement.

Dushmani

(singular: <u>dushman</u>) Soviet pejorative term for Afghan insurgents; it means "bandit" and originated during the 1930s Central Asia resistance.

DRA

The Democratic Republic of Afghanistan was established as the result of a coup led by Mohammad Nur Taraki and Hafizullah Amin in April 1978. Deteriorating internal security led to military intervention by the Soviet Union in December 1979 and Amin was killed by the invading troops. The Soviet invasion transformed armed resistance toward the modernistic but arbitrary reforms of Taraki and Amin into a war of national liberation.

KHAD

DRA intelligence service whose operations are entirely directed by its many Soviet KGB advisors. The acronym stands for Khedmat-Etala'at-e-Daulati (State Information Service). KHAD received ministerial rank in January 1986.

Mujahideen

(singular: <u>mujahid</u>) This Islamic term means "holy warrior," but it is most often used as a name for Afghanistan's resistance fighters, who consider their campaign a <u>jihad</u> (holy war) to drive unbelievers from their country.

Spetznaz

Soviet special warfare troops under the GRU (Military Intelligence Directorate) of the Soviet Ministry of Defense. These highly mobile units are deployed throughout Afghanistan for operations which require more skill or loyalty than is commonly displayed by Soviet or DRA troops.

CITATIONS AND ABSTRACTS

"Afghan Planes Raid Border Village." <u>Washington Post</u>, 4 March 1987, p. A25.

DRA warplanes attack refugee camps in Pakistan for the third time in a week. This time the target was Khairbad near the town of Arandu, 140 miles northwest of Islamabad. Pakistani officials said that nearly 100 persons were killed in the raids and 250 wounded. Predictably, the DRA denies that its planes were involved.

Berlin, Michael J. "U.N. to Reopen Talks on Afghan Resolution." Washington Post, 25 February 1987, p. A31.

The author feels that the participants in the UN-sponsored negotiations on the Afghan war are more optimistic than ever that a settlement of the war can be agreed upon. Formally, the only unresolved issue is the timetable for the pullout of the estimated 115,000 Soviet troops. Apart from the negotiations, the fundamental question of what kind of post- occupation government would emerge still remains. DRA Foreign Minister Abdul Wakil informed the Geneva press corps that Afghanistan is prepared to offer a specific timetable and to negotiate a coalition government which includes the current regime and rebel groups. The DRA's offer of a coalition government has thus far received a cool reception. Some diplomats, however, believe that if Afghanistan's former king, Zahir Shah, were made the nominal ruler, the formula might work.

Evans, Rowland and Novak, Robert. "Afghanistan: Soviet Withdrawal Terms." Washington Post, 20 February 1987, p. Al9.

The authors commend the success of the Reagan Doctrine to date in getting weapons to the mujahideen, thereby forcing the Soviets to at least talk about ending the war. However, they are concerned that in the aftermath of "Irangate," the administration, suffering from diminished credibility, is becoming split on its policy toward Afghanistan. Undersecretary of Defense Fred Ikle has stated to the Congressional Afghanistan Task Force that no "Communist-front government" would ever be acceptable to

the rebels. Secretary of State George Schultz on the other hand, has privately said that any government would do as long as the Soviets pull out. The authors caution that with the US Government in disarray, Pakistan will become increasingly wary in its role as the Reagan Doctrine conduit for funneling arms to the mujahideen.

"For Soviet Civilians, a `Nervous' Life." New York Times, 24 January 1987

The author describes Mikrorayon, the Soviet housing project in Kabul and home to most of the 9, 000 Soviet advisors posted in Afghanistan, as a "minature Moscow". These residents live a reclusive life--characterized by fear and a sense of separation from their surroundings -- in a hostile and dangerous world. The Soviets are keenly aware that the traditional dislike the Afghans have for them is now, after years of destructive foreign occupation, amplified into seething hatred. Life for the Soviet civilian in Kabul is insular -- social contacts are limited to East European bloc personnel--and shoppers, on their rare forays into the bazaar, are accompanied by armed soldiers. The civilians are offered a number of compensations to balance the hardship: well stocked shops, apartments outfitted with refrigerators, Soviet TV channels transmitted by landline to Kabul, and private screening rooms for Soviet movies. Still, there is the omnipresent threat of assassination, a constant concern for the civilians, since they make good targets in the crowded bazaars.

Joshi, V.T. "Pakistan in Fix on Afghanistan." <u>Times of India</u> (Bombay), 15 February 1987, p. 9.

Both superpowers are stepping up pressure on Pakistan as the next round of Geneva talks approaches. The author does not believe that the United States sincerely wants a settlement of the war. The Soviet Union, he continues, is prepared to offer Pakistan a number of diplomatic and economic enticements to come to an agreement, including liberal economic aid, and Soviet promises to persuade

India to accept a no-war pact with Pakistan. Citing domestic social and economic problems, the author contends that Pakistan's leaders would indeed be interested in such an arrangement. He questions the extent of Soviet influence on India, and states that India prefers postponing a no-war pact in favor of an abiding treaty of friendship and cooperation.

The seven party Islamic Unity of Mujahideen of Afghanistan is pursuing a new diplomatic initiative to procure full membership in the Organization of Islamic Conference (OIC). A high-powered delegation led by the current leader of the mujahed alliance, Professor Abdur Rasul Sayyef, is expected to vigorously promote its cause. Sayyef is known to be fluent in Arabic and to be a persuasive lobbyist.

Sciolino, Elaine. "Enigmatic Hard-Liner Najib." New York Times, 16 January 1987, p. A6.

The current leader of the DRA is so mysterious, maintains the author, that even the rendering of his name stirs up controversy. According to some sources, Najib, as he is known in Afghanistan, shortened his name from Najibullah, taking issue with the "ullah" -- a reference to Allah. he is trying to resurrect the longer name to convince his countrymen of his respect for Islam. Najib, once a devout Muslim, is known to have abandoned religion after becoming a Communist organizer at the medical school of Kabul University. After graduation he served 1 year in the military. Najib's precipitous rise to his present rank of Lt. General was facilitated by his membership in the PDPA at its founding in 1965 and by his reputation as a loyal party (Parchami) man. An obvious favorite of the Soviets, Najib was installed as head of the State Information Service, also known as Khad, hours after Soviet forces invaded in 1979.

Taubman, Philip. "Russians Hold Key to Power But Not to Afghanistan's Soul." New York Times, 26 January 1987, p. A6.

The "Sovietization" of Afghanistan is encountering strong cultural resistance from the people. Afghanistan, for centuries, has been a cross-roads of civilizations. Afghans personify a free-market spirit inimical to Soviet style centralized management. Even the topography of the country with its rugged mountain ranges and isolated valleys seems a natural rebuttal of the Marxist-Leninist ethos. The author, one of a number of Western journalists to visit Kabul in January, derides the adoption of Soviet values and behavioral norms by DRA institutions and cadres as mere mimickry. Afghan television, for instance, mirrors Soviet programming with its emphasis on ideologically safe themes and blistering anti-American tirades, and government officials greet each other as "comrade". The DRA elite lives a materially pampered life vis-a-vis the rest of the populace and enjoys many of the same priviledges available to party members in the Soviet Union. Much of what he witnessed in Kabul, concludes the author, was veneer -- the soul and spirit of the Afghan survives -- and Afghanistan could never be mistaken for the 16th Soviet Socialist Republic.